

FIG. 2

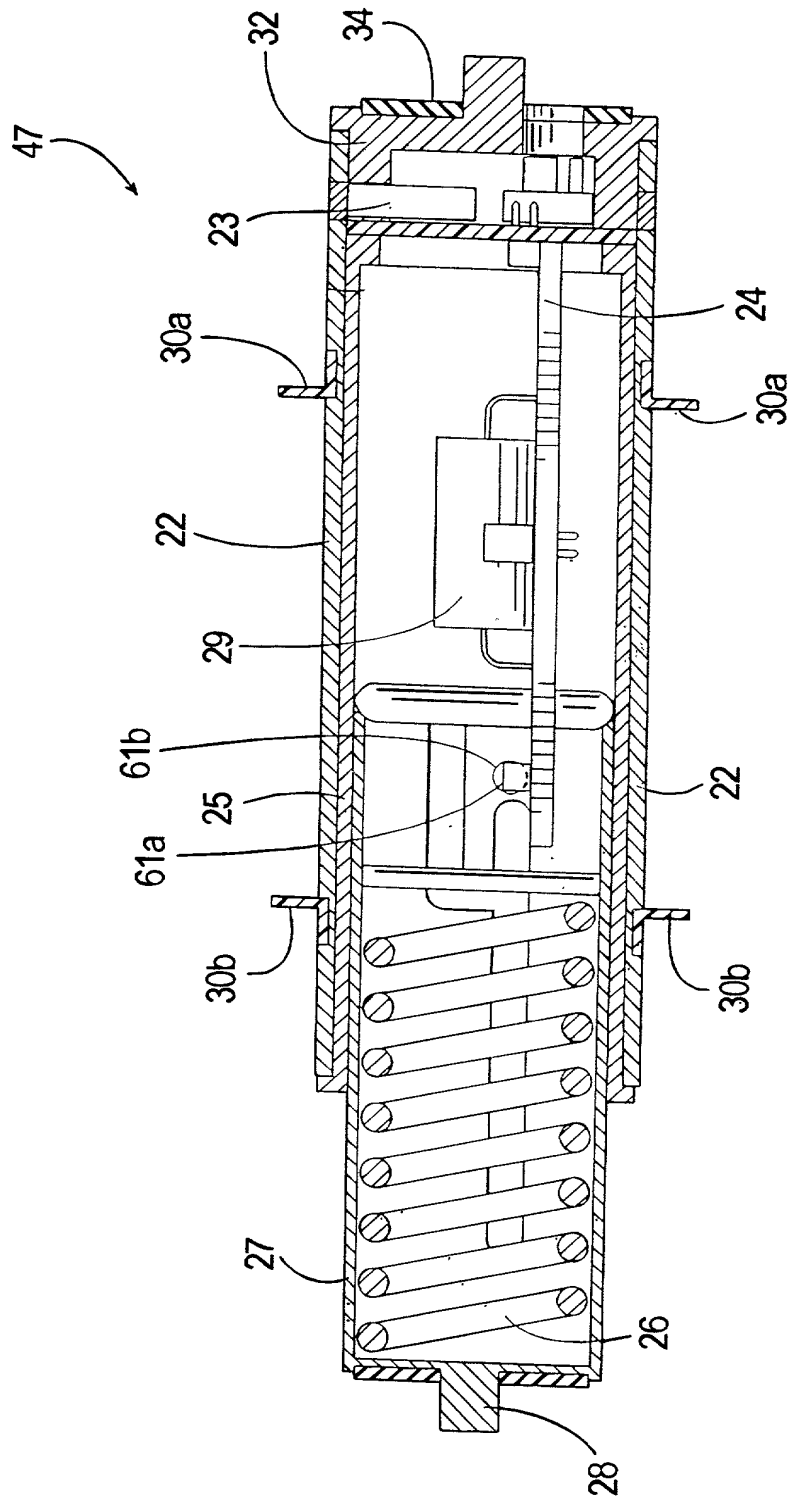
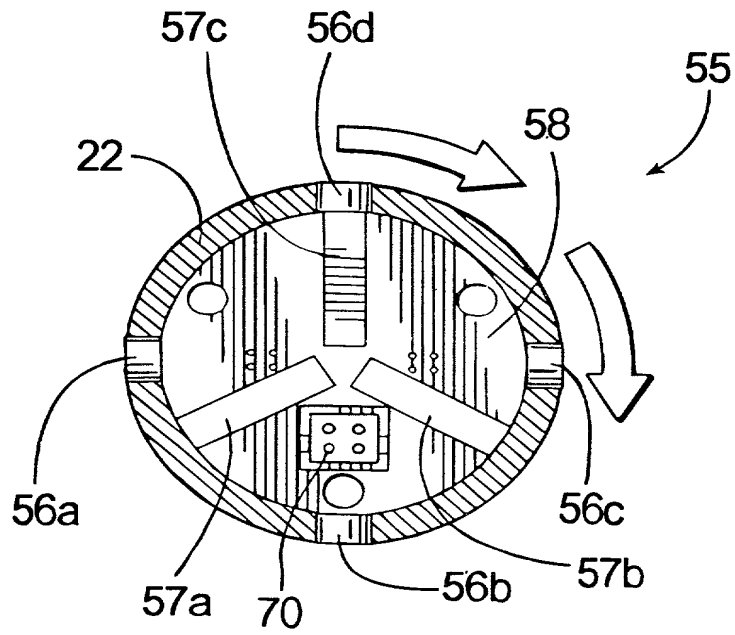
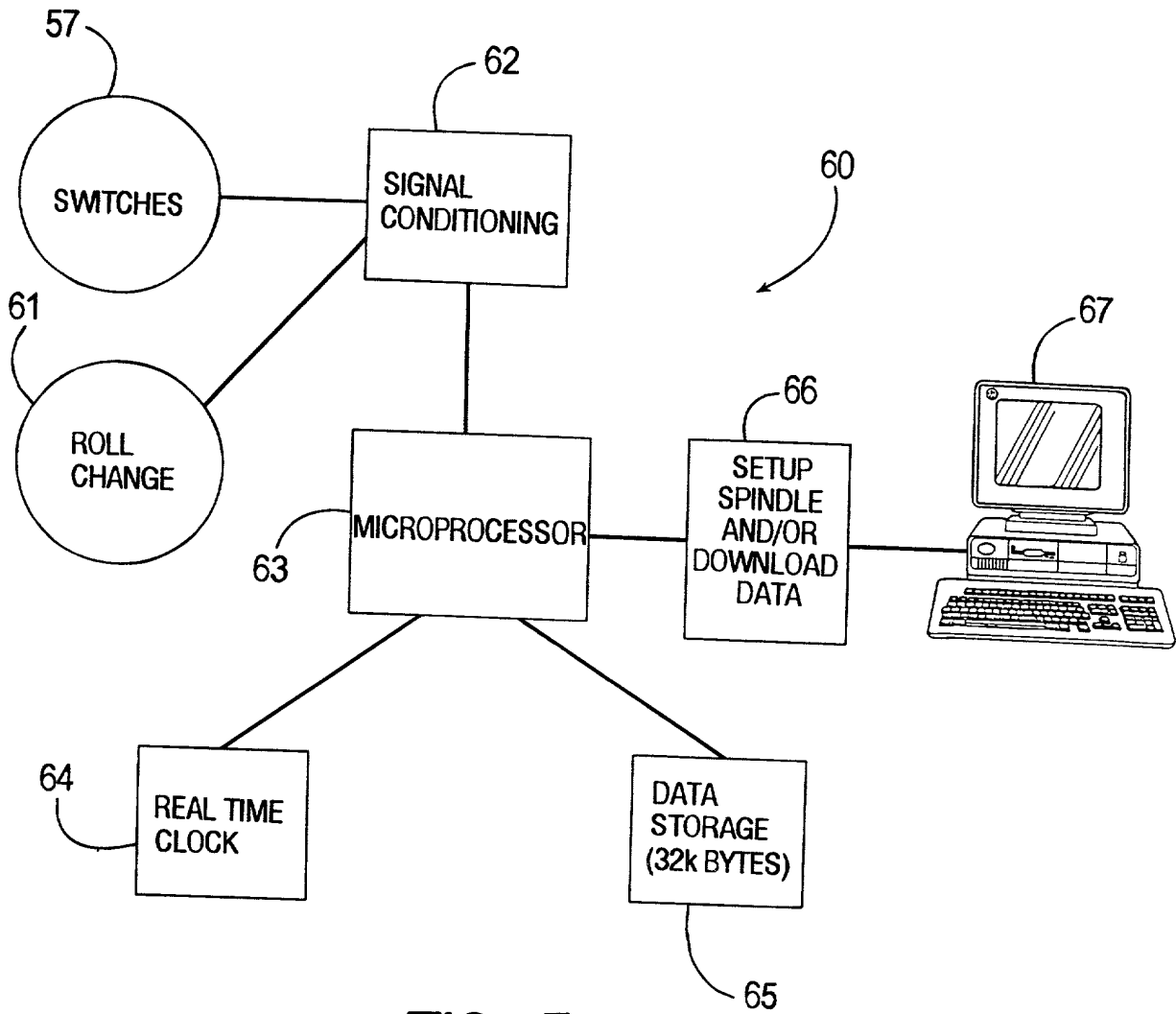


FIG. 3

**FIG. 4**

**FIG. 5**

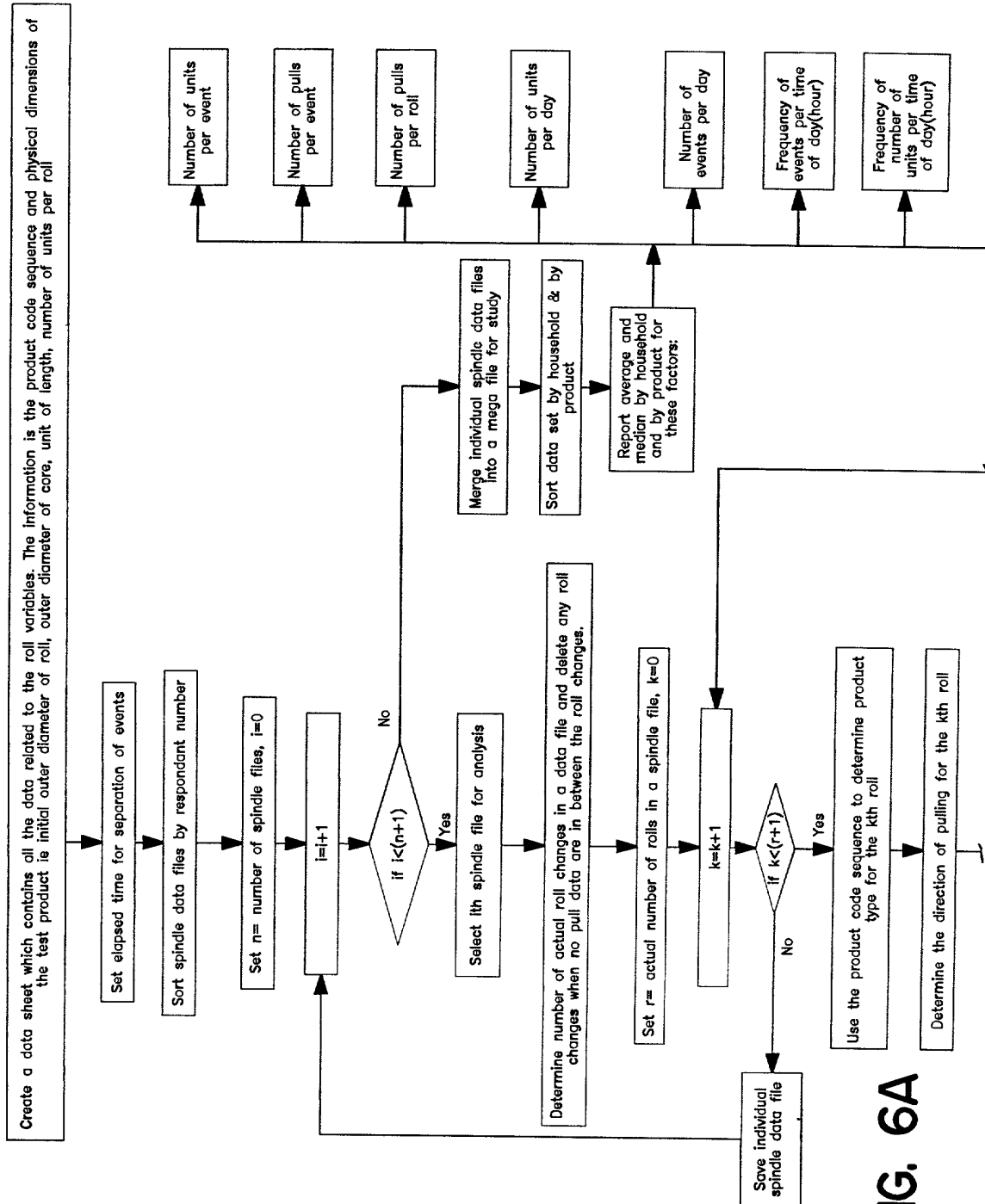


FIG. 6A

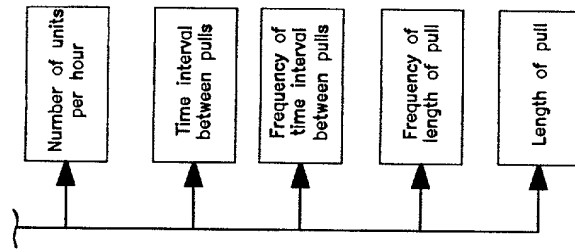
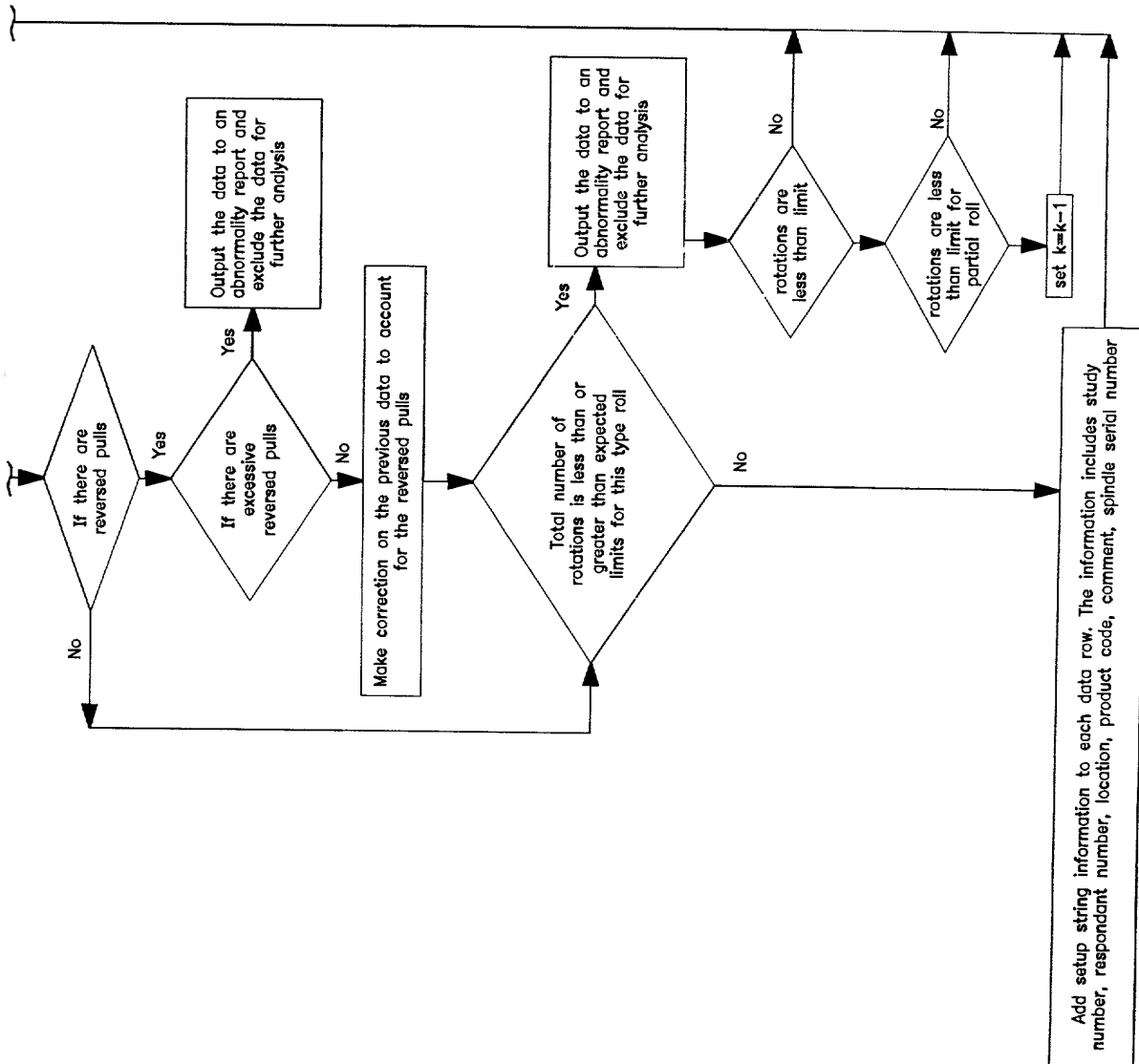


FIG. 6B



Use of Smart Spindle for toilet paper utility in Consumer Home

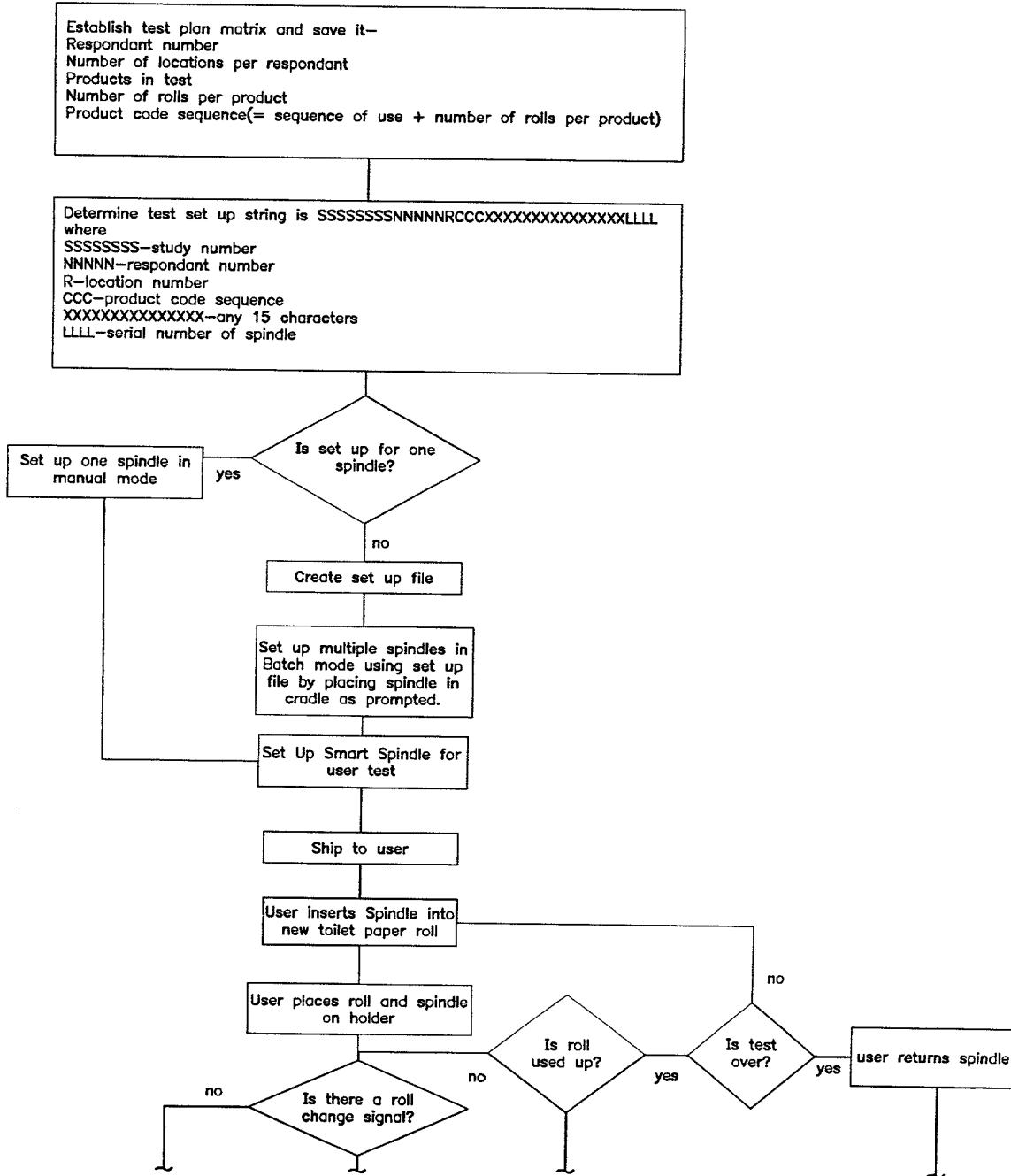


FIG. 7A

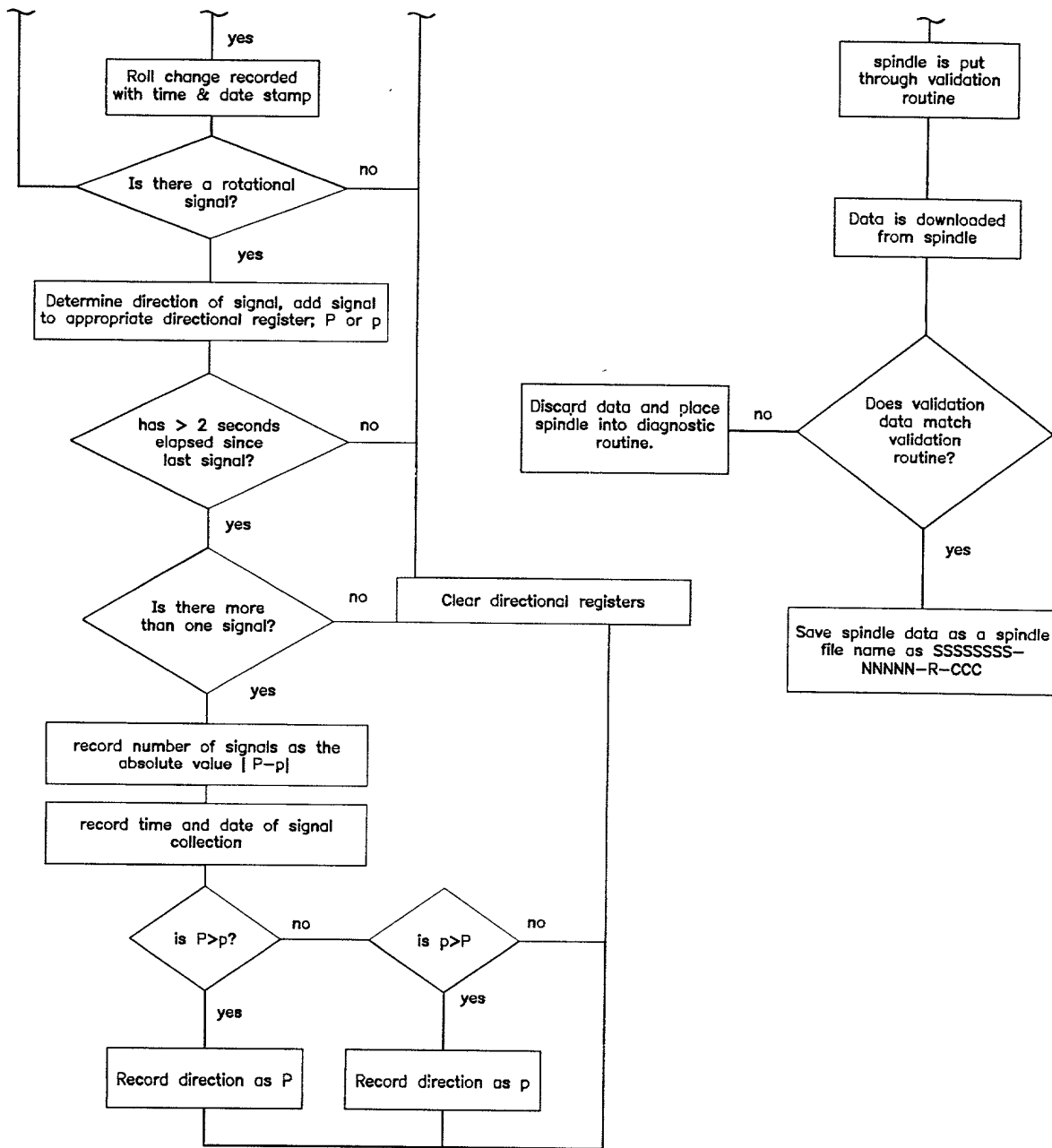
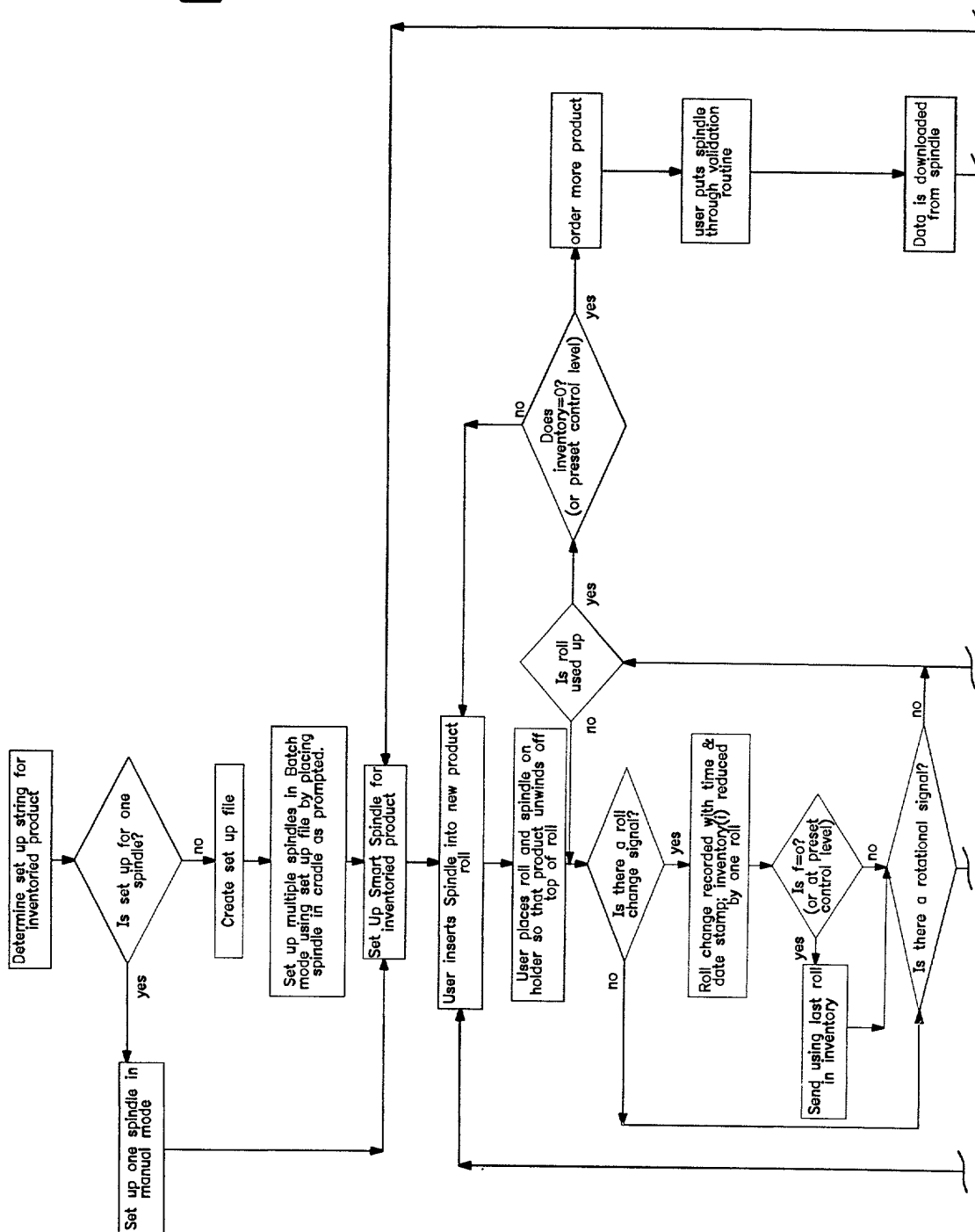


FIG. 7B

Use of Smart Spindle to control an inventory in Consumer Home, retailstore

FIG. 8A



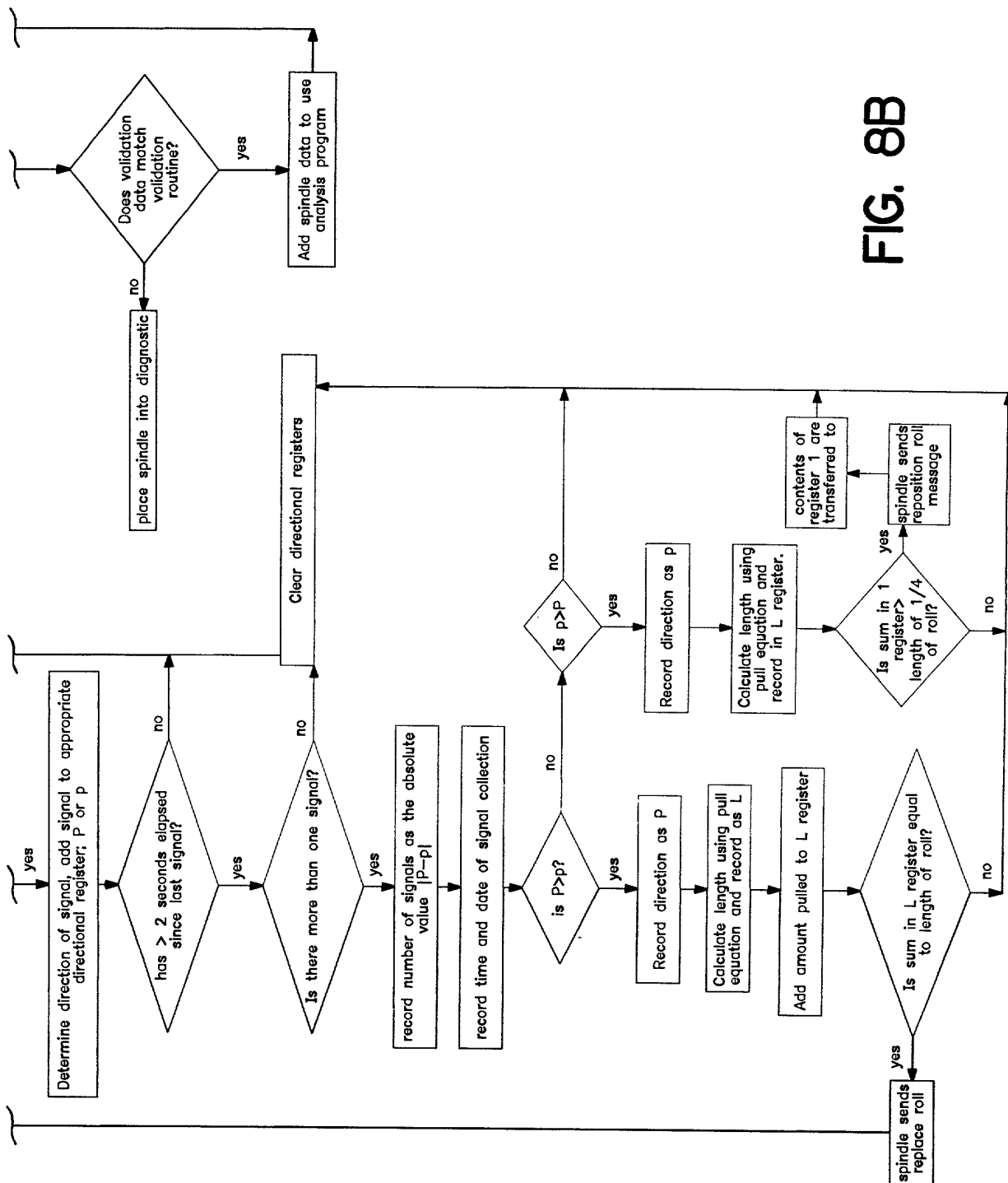


FIG. 8B

☐ Spindle Manager _ □ ×

File Help

Setup Collect

File Setup

Setup File Change

Spindle ID

Start Skip Continue Abort

☐ Always Setup

Manual Setup

Spindle ID Setup

HOMETEST000021ASD0002

		0	Not downloaded	1:01:
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FIG. 9

Microsoft Excel-SS_02.xls

File Edit View Insert Format Tools Data Window Help

Arial 11 B I U Bold Italic Underline

Test Setup

	A	B
1	Employee	
2	R	110500 1
3	p	110500 1
4	p	110500 2
5	p	110600
6	p	110600
7	p	110600
8	p	110600
9	p	110600
10	p	110600
11	p	110600 2
12	p	110700
13	p	110700
14	p	110700
15	p	110700
16	p	110700
17	p	110700
18	p	110700 114848 31
19	p	110700 203518 28
20	p	110800 11226 5
21	p	110800 11236 15

Ready

Start Inbox-Microsoft Outlook Microsoft Word-SS-PR... Microsoft Excel 1,... 1:07 PM

Study # Employee

Subject # 1

Bathroom # 1

Product ID ASK

Spindle ID 1

Criterion for visits(min) 3.0

Refresh OK

FIG. 10

☐ Spindle Manager

File Help

Setup Collect

Batch Collect

Start

Directory

C:\Ms Td\MSG\Smart Spindle\Spindle

Change

Finish

Spindle ID

☐ Over-write Files

Single Collect

Collect View

Save

		0	Not downloaded	1:09:
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FIG. 11

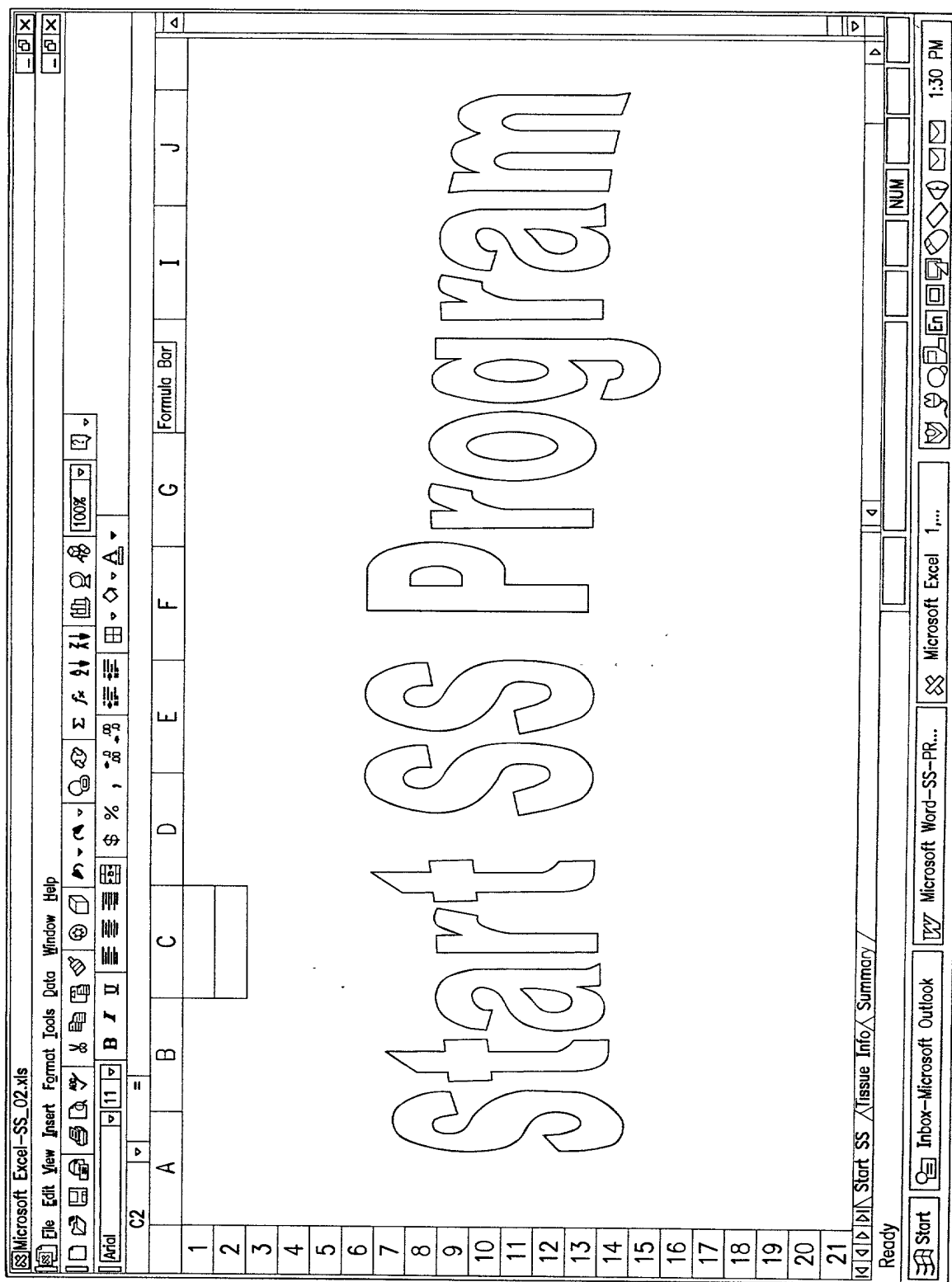


FIG. 12

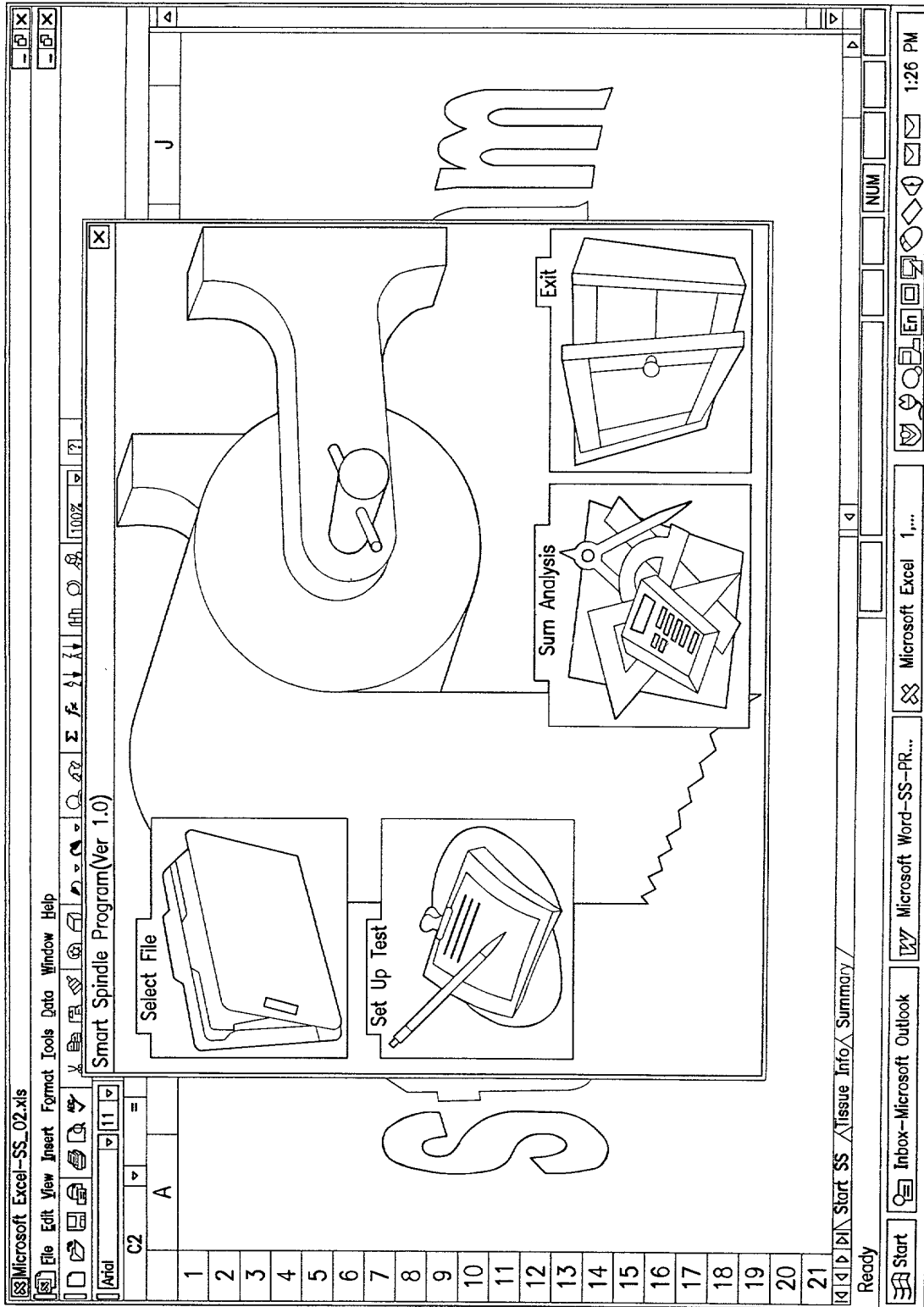


FIG. 13